



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,788	02/07/2001	Behrooz Rezvani	VELCP009C	7770
28436	7590	06/08/2005	EXAMINER	
IP CREATORS P. O. BOX 2789 CUPERTINO, CA 95015			DEPPE, BETSY LEE	
			ART UNIT	PAPER NUMBER
			2637	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,788

Applicant(s)

REZVANI ET AL.

Examiner

Betsy L. Deppe

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jan. 24, 2005 is/are: a) ☒ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on January 24, 2005. These drawings are accepted.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "724A" has been used to designate both an adder and a subtractor in Figures 7A and 7B. Since page 16, line 24, refers to "724A" as "summers," it appears that the subtractor in Figures 7A and 7B should be changed to an adder.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The amendment to the abstract is non-compliant because it does not commence on a separate sheet. Furthermore, instead of referring to the page and line numbers of the original abstract, the amendment should indicate that the abstract is replaced.

Appropriate correction is required.

4. On pages 2 and 8 of the response filed January 24, 2005, the paragraph beginning on page 3, line 3 is replaced with two different paragraphs. The applicant must clarify which paragraph is appropriate by reiterating the proper replacement paragraph for the paragraph beginning on page 3, line 3 and designating the proper location of the other replacement paragraph.

Claim Objections

5. The claims are objected to because of the following informalities:

in claim 1, the Examiner suggests the following changes to lines 9-11 for clarification:

“a Fourier transform engine for transforming transmitted and received communication ~~channels~~ channel signals between the time domain and the frequency domain wherein using a common set of tones spanning a shared frequency range is used for the transmitted and received communication ~~channels~~ channel signals”

in claim 1, it appears that on line 19, “to decode a received communication channel” should be “to decode a received communication channel **signal**” since a signal, not a channel, is usually decoded;

in claim 10, lines 15, “channels” should be “channel signals” for clarification;

in claim 12, line 9, "modem respectively" should be "modem, respectively"; and
in claim 13, line 9, "modem respectively" should be "modem, respectively."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-4, 8 and 10-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification, as originally filed, does not describe the encoder recited in claim 1, lines 15-17, claim 3, lines 3-5, claim 4, lines 10-13 and the steps recited in claim 10, lines 19-21. According to the claims, there are two steps, i.e. replicating and then encoding with a code sequence. However, according to the detailed description, it appears that it is the "encoding" that results in redundancy. (See page 16, lines 13-17; page 17, lines 12-18; and steps 818 and 848 in Figure 8) Therefore, the replicating and the encoding of the replicated data recited in

claims 1, 3, 4 and 10 were not described in the specification as originally filed. As dependent claims, claims 2-4, 8 and 11-13 are rejected under the same grounds.

9. With regard to claim 3, the specification as originally filed does not describe an encoder with a Walsh encoder and a Walsh decoder and a decoder with a Walsh encoder and a Walsh decoder as recited. Furthermore, similar to the rejection of claim 1 above, the specification as originally filed does not describe an encoder that duplicates a tone set and then encodes the duplicated tone sets utilizing a first Walsh code.

10. Claims 1-4, 8 and 10-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

11. With regard to claims 1, 3 and 4, it is unclear how the decoder in claim 1, lines 18-20, claim 3, lines 6-9 and claim 4, lines 14-16, uses the second code sequence to decode the signal having data redundancy. Based on the description of decoders 338A and 338B on page 16, lines 23-29 and page 17, lines 22-28, respectively, it is unclear how the code sequence is used to decode the received signal. Dependent on claim 1, claims 2 and 8 are rejected under the same grounds.

12. With regard to claim 10, lines 25-27, it is unclear how the data is decoded using the first and second code sequence. Based on the description of decoders 338A and

338B on page 16, lines 23-29 and page 17, lines 22-28, respectively, it is unclear how each code sequence is used to decode the respective received data. As dependent claims, claims 11-13 are rejected under the same grounds.

13. Claims 4 and 10-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. In claim 4, it is unclear from the preamble what is comprised of the recited limitations.

15. In claim 10, lines 14-15 is vague and indefinite because it is unclear whether the upstream and downstream channels are in reference to the first modem, second modem or both. Dependent on claim 10, claims 11-13 are rejected under the same grounds.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not


Art Unit: 2637

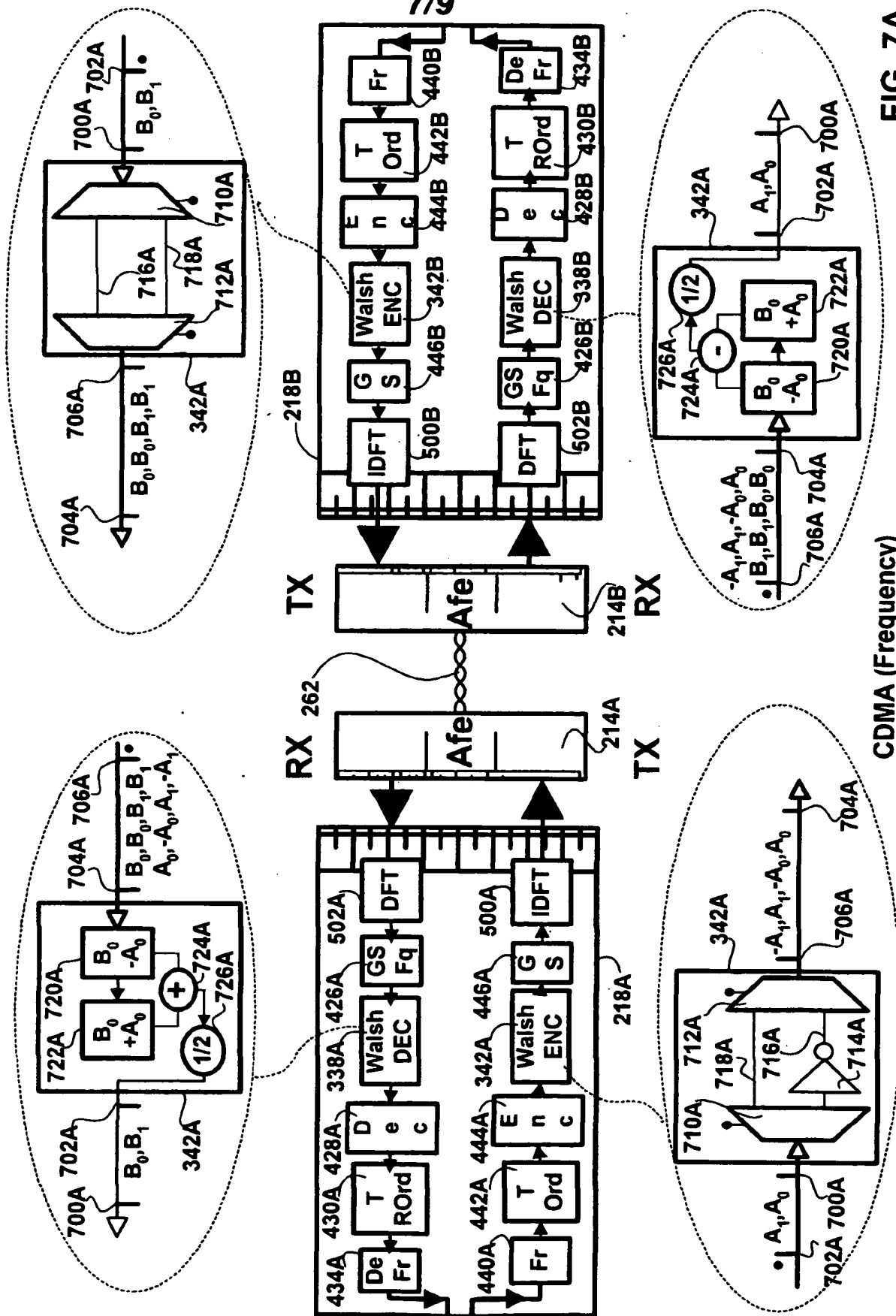
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Wednesday and Thursday (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Betsy L. Deppe
Primary Examiner
Art Unit 2637



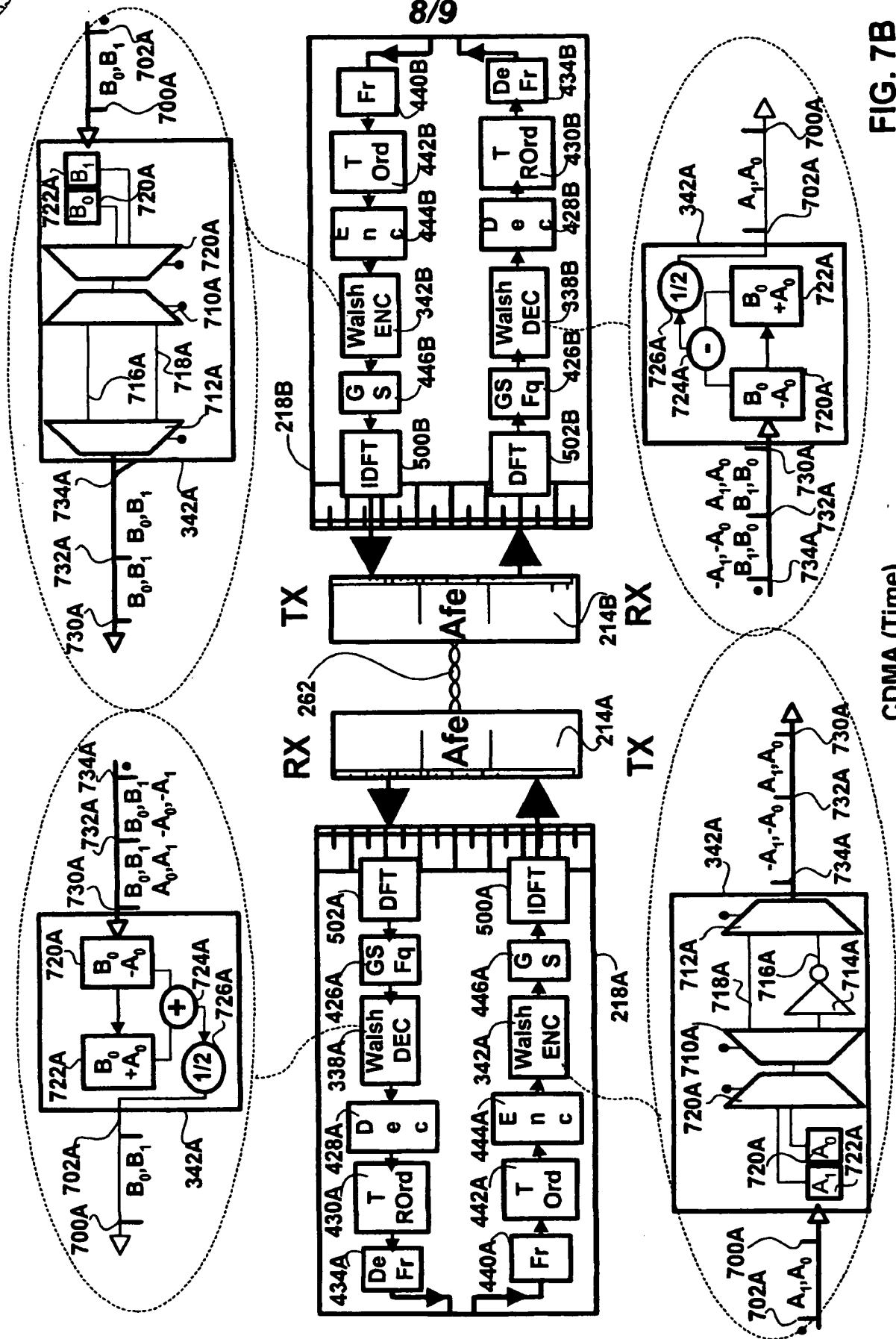


FIG. 7B

CDMA (Time)

Best Available Copy